

WHAT IS CLAIMED IS:

1. An array substrate for an in-plane switching liquid crystal display device,
comprising:
a substrate;
5 a gate line and a data line on the substrate, the data line having at least one
bent portion;
a thin film transistor at a crossing portion of the gate and data lines;
a plurality of common electrodes having at least one bent portion, at least
one overlapping common electrode overlapping at least a portion of the data line;
10 a common line connected to the common electrodes; and
a plurality of pixel electrodes alternated with the common electrodes, each
pixel electrode having at least one bent portion.
2. The array substrate for an in-plane switching liquid crystal display device
15 according to claim 1, further comprising a pixel line extending along a
direction of gate line and connected to the plurality of pixel electrodes.
3. The array substrate for an in-plane switching liquid crystal display device
according to claim 1, wherein the overlapping common electrode is formed of
20 a non-transparent material.
4. The array substrate for an in-plane switching liquid crystal display device
according to claim 3, wherein the common line and the common electrodes are
on the same layer as the gate line.

5. The array substrate for an in-plane switching liquid crystal display device according to claim 4, wherein the pixel line partially overlaps the common line.
- 5 6. The array substrate for an in-plane switching liquid crystal display device according to claim 4, wherein the pixel line partially overlaps the gate line.
7. The array substrate for an in-plane switching liquid crystal display device according to claim 4, wherein the pixel line and the pixel electrodes include one of indium-tin-oxide and indium-zinc-oxide.
- 10 8. The array substrate for an in-plane switching liquid crystal display device according to claim 3, wherein the overlapping common electrode is on the same layer as the gate line.
- 15 9. The array substrate for an in-plane switching liquid crystal display device according to claim 3, wherein the common line and the common electrodes except for the overlapping common electrode are formed on the same layer as the pixel line and the pixel electrodes.
- 20 10. The array substrate for an in-plane switching liquid crystal display device according to claim 9, wherein the pixel line partially overlaps the gate line.

11. The array substrate for an in-plane switching liquid crystal display device according to claim 9, wherein the pixel line and the pixel electrodes are formed of one of indium-tin-oxide and indium-zinc-oxide.

5 12. The array substrate for an in-plane switching liquid crystal display device according to claim 1, wherein the overlapping common electrode is formed of a transparent material.

10 13. The array substrate for an in-plane switching liquid crystal display device according to claim 12, wherein the common line and the common electrodes are formed on the same layer as the pixel line and the pixel electrodes.

14. The array substrate for an in-plane switching liquid crystal display device according to claim 12, wherein the pixel line partially overlaps the gate line.

15 15. The array substrate for an in-plane switching liquid crystal display device according to claim 12, wherein the pixel line and the pixel electrodes are formed of one of indium-tin-oxide and indium-zinc-oxide.

20 16. The array substrate for an in-plane switching liquid crystal display device according to claim 1, wherein the common and pixel electrodes and the data line have a substantially zigzag shape.

17. The array substrate for an in-plane switching liquid crystal display device according to claim 1, further comprising a storage electrode formed of the same layer as the source and drain electrodes.

5 18. An array substrate for an in-plane switching liquid crystal display device, comprising:

a substrate;

a gate line and a data line on the substrate, the data line having at least one bent portion;

10 a thin film transistor connected to the gate and data lines;

a plurality of common electrodes having at least one bent portion, at least one of the common electrodes covering the data line;

a common line connected to the plurality of common electrodes; and

a plurality of pixel electrodes alternated with the common electrodes,

15 each pixel electrode having at least one bent portion.

19. The array substrate for an in-plane switching liquid crystal display device according to claim 18, further comprising a pixel line extending along the direction of the gate line and connected to the plurality of pixel electrodes.

20 20. A method of fabricating an array substrate, comprising:

forming a common line, a plurality of common electrodes, a gate line and a gate electrode on a substrate, the common electrodes having a substantially zigzag shape;

forming a gate insulator on the gate and common lines;
forming a semiconductor layer on the gate insulator;
forming a data line and source and drain electrodes on the semiconductor layer, the data line having a substantially zigzag shape and overlapping at least one common electrode;
forming a passivation layer on the data line and the source and drain electrodes; and
forming a plurality of pixel electrodes and a pixel line, the pixel electrodes having a substantially zigzag shape and being alternated with the common electrodes.

21. A method of fabricating an array substrate, comprising:

forming a gate line, a gate electrode and at least one common electrode on a substrate, the common electrode having a substantially zigzag shape;

forming a gate insulator on the gate line and common electrode;
forming a semiconductor layer on the gate insulator;
forming a data line and source and drain electrodes on the semiconductor layer, the data line having a substantially zigzag shape and overlapping a portion of the common electrode;

forming a passivation layer on the data line and the source and drain electrodes; and

forming a common line, a plurality of other common electrodes, a plurality of pixel electrodes and a pixel line on the passivation layer, the common and pixel electrodes having a substantially zigzag shape.

22. A method of fabricating an array substrate, comprising:

forming a gate line and a gate electrode on a substrate;

forming a gate insulator on the gate line and gate electrodes;

5 forming a semiconductor layer on the gate insulator;

forming a data line and source and drain electrodes on the semiconductor layer, the data line having a substantially zigzag shape;

forming a passivation layer on the data line and the source and drain electrodes; and

10 forming a common line, a plurality of common electrodes, and a plurality of pixel electrodes on the passivation layer, the common and pixel electrodes having a substantially zigzag shape and being alternated with each other, and at least one overlapping common electrode overlapping a portion of the data line.

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23. The method of fabricating an array substrate according to claim 22, wherein the overlapping common electrode is formed of an opaque material.

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24. A substrate for a switching liquid crystal display device, comprising:

a substrate;

a gate line and a data line on the substrate, the data line having at least one bent portion;

a thin film transistor at a crossing portion of the gate and data lines;

a plurality of common electrodes having at least one bent portion,
wherein at least one of the common electrodes is on a layer above the data line
and wherein the at least one of the common electrodes overlaps at least a portion
of the data line;

5 a common line connected to the common electrodes; and

 a plurality of pixel electrodes alternated with the common electrodes,
each pixel electrode having at least one bent portion.

10 25. A substrate for a switching liquid crystal display device, comprising:

 a substrate;

 a gate line and a data line on the substrate, the data line having at least
one bent portion;

 a thin film transistor at a crossing portion of the gate and data lines;

15 a plurality of common electrodes having at least one bent portion,
wherein at least one of the common electrodes is on a layer above the data line
and wherein the at least one of the common electrodes covers the data line;

 a common line connected to the common electrodes; and

 a plurality of pixel electrodes alternated with the common electrodes,
20 each pixel electrode having at least one bent portion.

26. A substrate for a switching liquid crystal display device, comprising:

 a substrate;

25 a gate line and a data line on the substrate, the data line having at least
one bent portion;

a thin film transistor at a crossing portion of the gate and data lines;
a plurality of common electrodes having at least one bent portion,
wherein the data line is on a layer above at least one of the common electrodes
and wherein the data line overlaps at least a portion of the least one of the
5 common electrodes;

a common line connected to the common electrodes; and
a plurality of pixel electrodes alternated with the common electrodes,
each pixel electrode having at least one bent portion.

10 27. The substrate of claim 26, wherein the at least one common electrode includes at
least parallel zigzag portions.

28. The substrate of claim 27, wherein the data line overlaps at least a portion of at
least one of the two parallel zigzag portions of the common electrode.

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